SONY

3-755-058-21 (2)

Compact Disc Player

Operating Instructions

CDP-C321

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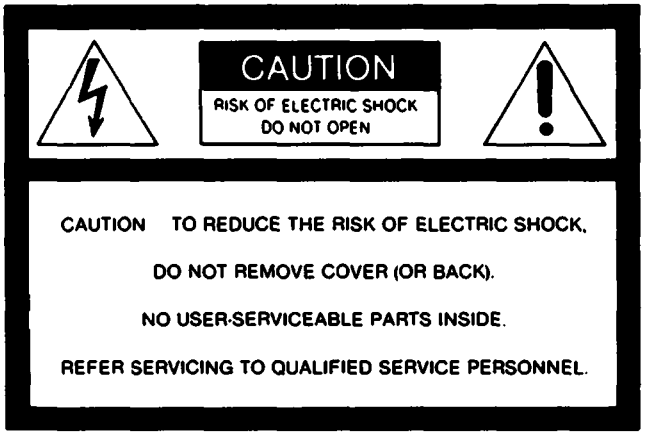
Owner's Record

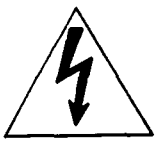
The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. CDP-C321 Serial No. _____

Warning

To prevent fire or shock hazard, do not expose the unit to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in Canada

CAUTION:
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

THIS APPARATUS COMPLIES WITH THE CLASS B LIMITS FOR RADIO NOISE EMISSIONS SET OUT IN RADIO INTERFERENCE REGULATIONS.

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Introduction

This unit is equipped with 5 disc trays which allow you to choose from a large number and wide variety of selections. Any disc at any time can be played using the DISC 1 to 5 buttons.

Enjoy listening in various playing modes

You can select the playing modes among the following:

Continuous play (page 7)	– The entire disc(s) is played once.
Shuffle play (page 10)	– Selections are played in a random order.
Repeat play (page 11)	– Single selection or disc(s) are played repeatedly.
Program play (page 12)	– Selections are played in your desired order.

Editing your own tapes

- You can confirm the total playing time while choosing the selections to be programmed. – Program play (page 12)
- The player can program selections automatically to fit in a desired duration. – Time edit (page 14)
- You can stop the play, fading out at the desired time. – Time fade (page 16)
- The loudest portion of the disc will be determined and played repeatedly. – Peak search (page 16)

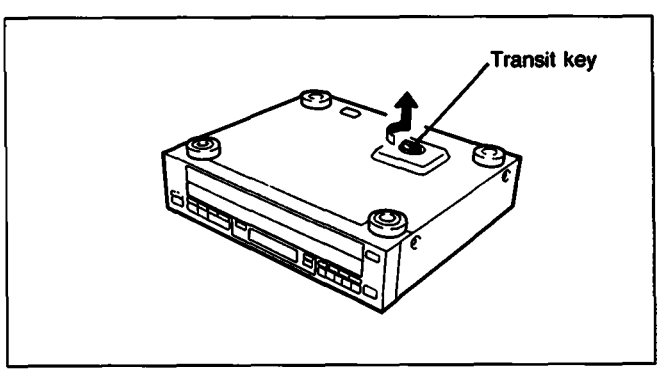
Easy-to-see display

The selection number, the playing time, the remaining time are displayed by pressing the TIME button. And also playing modes like repeat, shuffle, program are displayed in the display window. (page 8)

Note on the Transit Key

The transit key on the bottom exterior of the unit protects the optical system against shock during transportation. Before operating the CD player, be sure to remove the key by following the instructions on the label, and store it in a safe place.

When transporting the unit, replace the key in its original hole and lock it in place.



Precautions

On safety

- Operate the unit only on 120 V AC, 60 Hz.
- Should any liquid or solid object fall into the cabinet. Unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it will not be used for a long time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.
- As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

On operation

When the unit is not used, turn the power off, to conserve energy and to extend the useful life of your unit.

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS". (Model for USA)

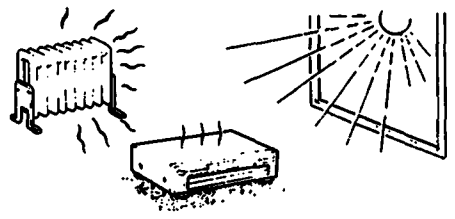
If you have any questions or problems concerning your unit, please contact you nearest Sony dealer.

Installation

Placing Your Unit

- Place the unit in a location with adequate air circulation to prevent internal heat buildup in the unit.
- Do not place the unit on a soft surface, such as a rug that would block the ventilation holes on the bottom.
- Do not install the unit.
  - near heat sources such as radiators or air ducts.
  - in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

Not this way.



On moisture condensation

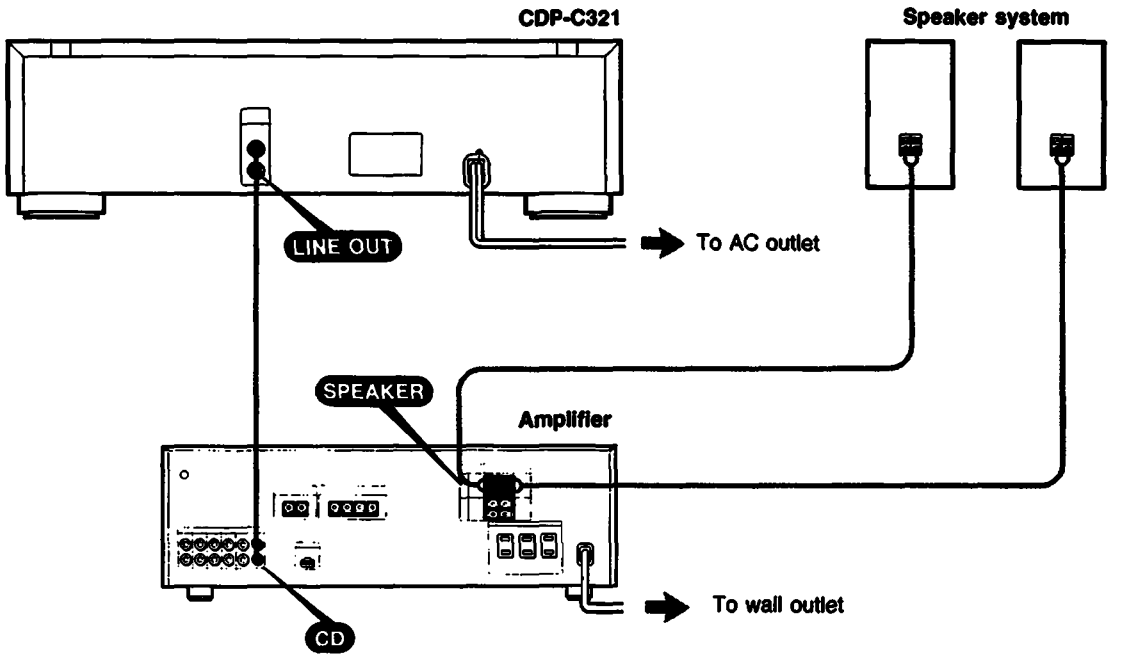
If the unit is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the unit. Should this occur, the player will not operate. In this case, remove the disc and leave the player turned on for about an hour until the moisture evaporates.

Connections

For Correct Connections

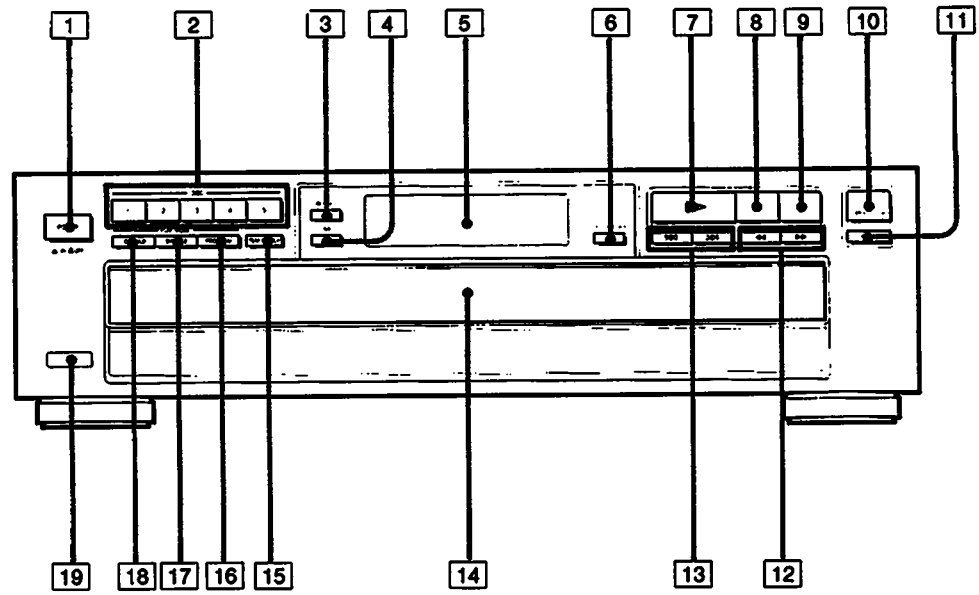
- Turn off the power of each unit before making connections.
- Connect the AC power cord last.
- Be sure to insert the plugs firmly into the jacks. Loose connection may cause hum and noise.
- Leave a little slack in the connecting cord to allow for inadvertent shock and vibration.
- Cord plugs and jacks are color coded: Red plugs and jacks are for the right channel (R) and white ones for the left channel (L).

To Connect to an Amplifier



Location of Controls

Front Panel



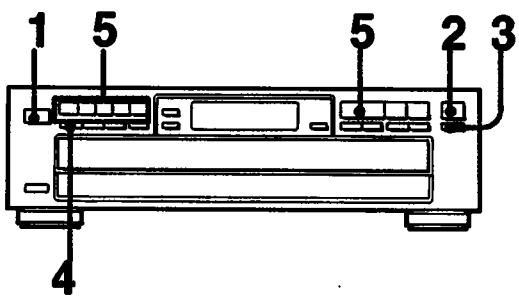
Refer to the pages indicated in ( ) for details.

1 POWER switch (page 7)
2 DISC 1-5 buttons (page 7)
3 REPEAT button (page 11)
4 TIME button (page 8)
5 Display window
6 EDIT/TIME FADE button (page 14)
7 ▶ (play) button (page 7)
8 ▮▮ (pause) button (page 7)
9 ■ (stop) button (page 7)
10 ⏏ OPEN/CLOSE button (page 7)
11 DISC SKIP button (page 7)
12 ◀◀/▶▶ (manual search) buttons (page 9)
13 ⏮/⏭ (AMS*) buttons (page 9)
14 Disc tray (page 7)
15 PEAK SEARCH button (page 16)
16 PROGRAM button (page 12)
17 SHUFFLE button (page 10)
18 CONTINUE button (page 7)
19 Remote sensor

* AMS is the abbreviation of Automatic Music Sensor.

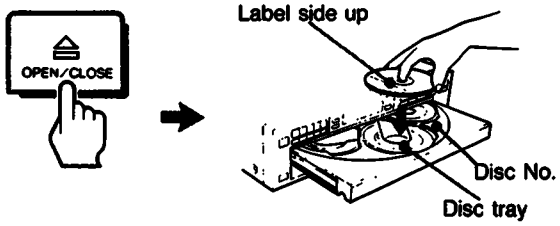
Playing a Disc – Continuous Play

Before playing a disc, turn on the amplifier and set the input selector to the CD player position.

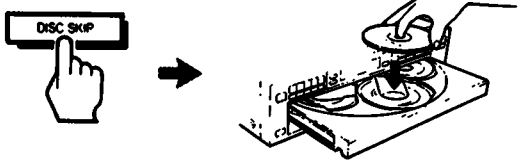


1

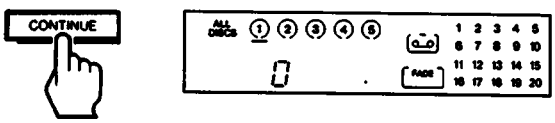
2



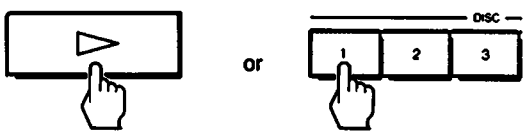
3 To play more than one disc, place up to 4 more discs in the tray.



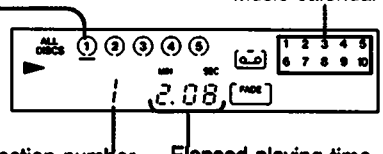
4 Choose whether to play one disc (1 DISC) or all discs (ALL DISCS).



5



When the playback of all selections of a disc has been finished, the circle on the tray number goes off.



To stop play

To stop for a moment during play, press ❚❚.
Press ► or ❚❚ to resume play.
To stop play, press ■.
To stop play and open the tray, press ⏏.

To start playing from the immediate beginning of a selection.

Press ❚❚ in the stop mode. The unit enters the pause mode at the immediate beginning of the selection.
Press ► or ❚❚ to start playing the selection from the immediate beginning. This function is convenient when recording, as it eliminates the seconds prior to the start of selections. You cannot use this function in the program play mode.

Caution on adjusting volume

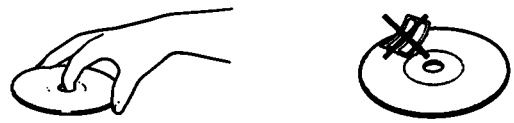
Do not turn up the volume while listening to a portion with very low level inputs or no audio signals. If you do the speakers may be damaged when a peak level portion is played.

Note

The tray number of an empty tray will be displayed until the empty tray number is set to play. Once it is recognized as empty, it will disappear.

Notes on handling discs

- To keep the disc clean, handle the disc by its edge. Do not touch the surface.
- Do not stick paper or tape on the disc.



- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight as temperature may rise considerably.
- After playing, store the disc in its case.

To play an 8 cm (3-inch) CD

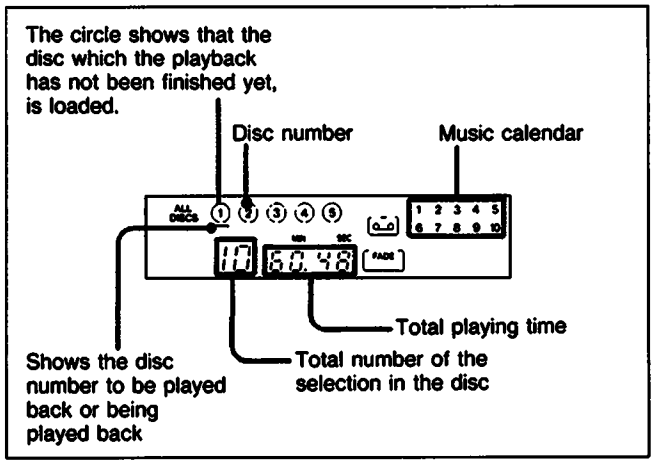
Place it on the inner circle of the tray. If the disc is provided with an adaptor, first remove it. Do not put a normal CD (12 cm/5-inch) on top of an 8 cm CD.

What is this indication?

no disc

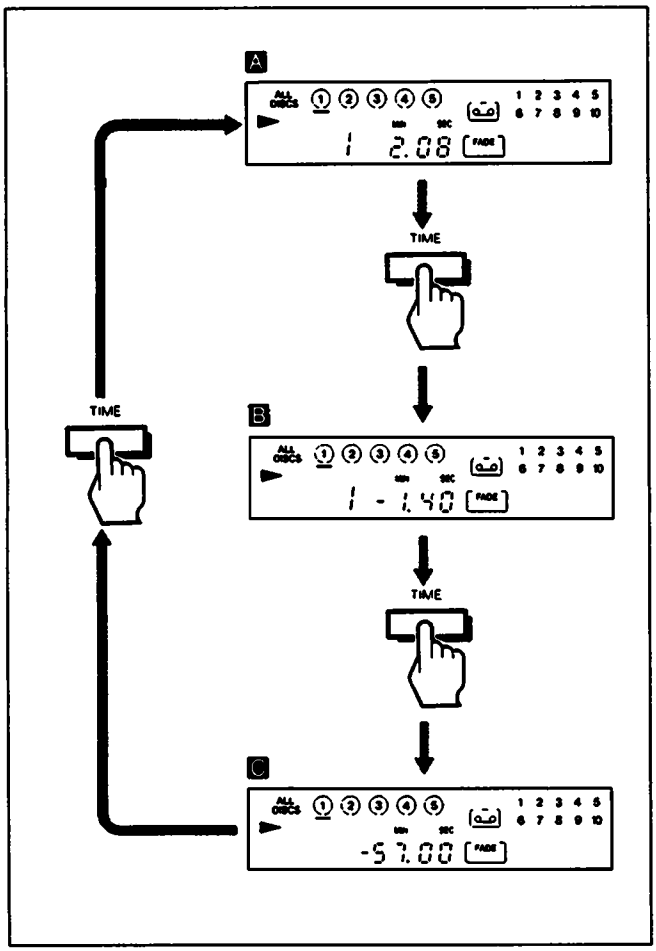
This indication appears when there is no disc at all in the tray.

Playing a Disc – Continuous Play


The circle shows that the disc which the playback has not been finished yet, is loaded.
Disc number
Music calendar
Total playing time
Shows the disc number to be played back or being played back
Total number of the selection in the disc

Information Display

When the disc tray is closed by pressing ⏏, the total number of selections and the total playing time of the disc to be played are displayed for a few seconds.
If you press TIME during stop, the total number of selections and the total playing time of the disc to be played can be displayed.

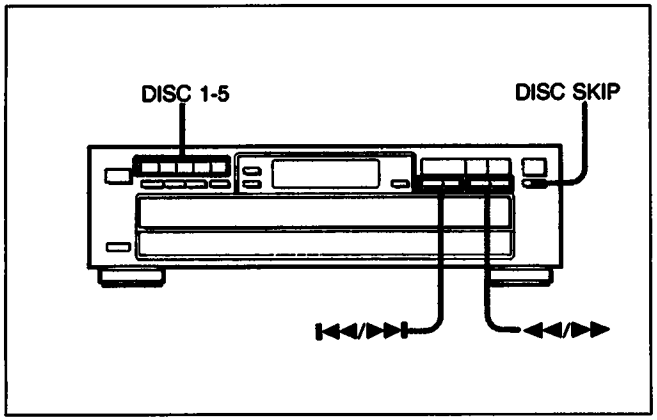


Each time you press TIME during play, the display changes to give you the following information.

- A Elapsed time in a selection (automatically displayed when play begins)
- B Remaining time in the selection
  "- -.- -" indication will appear in the display window instead of the actual time, if a selection numbered 21 or higher is selected.
- C Remaining time of the disc

Notes

- Total remaining time is only available during continuous mode. It will not be displayed by pressing the TIME button during program or shuffle mode.
- Total remaining time will be displayed, if time fade is set during program or shuffle mode.



Selecting a Desired Disc

By using the DISC 1 to 5 buttons or the DISC SKIP button during play, you can locate the beginning of any disc.

To select a particular disc	Press the corresponding DISC 1 to 5 button.
To move to the disc tray next to the current one	Press DISC SKIP button.

Locating a Particular Selection

Locating a selection in sequence (Automatic Music Sensor)
You can locate the beginning of a selection on the disc being played.

To locate the beginning of the selection being played	Press I◀◀ once.
To locate the beginning of the next selection	Press ▶▶I once.

Continue to press until the selection you want is located.

Locating a Particular Point in a Selection

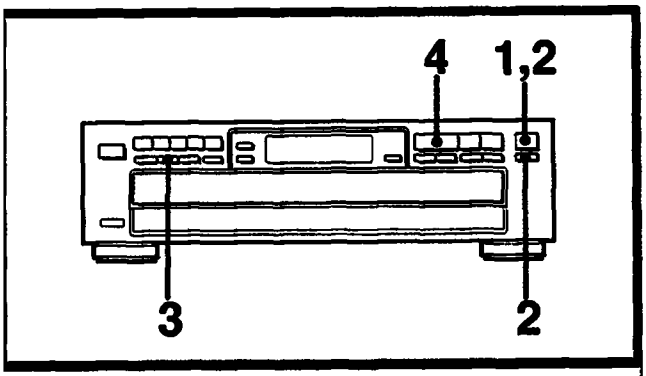
Locating a point in sequence (Manual Search)
You can locate a particular point during playback by monitoring the high-speed sound.

To go back at high speed	Keep ◀◀ pressed.
To go ahead at high speed	Keep ▶▶ pressed.

Release the button when you reach the point you want.

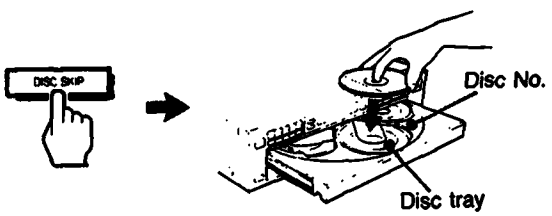
To locate at higher speed
Press ◀◀ or ▶▶ in the pause mode. Search speed will increase three times, but there will be no sound. Find the desired point by watching the number in the display.

Playing in a Random Order – Shuffle Play

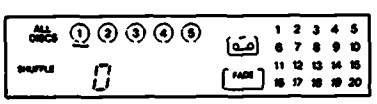


1 Press ⏏ to open the disc tray.

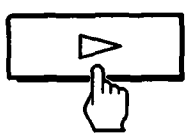
2 Place a disc with the label side up. To play more than one disc, press DISC SKIP to turn the disc tray and place up to 5 discs.
After placing discs, press ⏏ to close the disc tray.



3 Press SHUFFLE to set to the ALL DISCS mode.



4 Press ▶ to start playback.

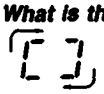


You can have the selections (up to 99) played in a random order. The unit will play all the discs or just one disc you desire.
Once a selection is played, it will not be played again until the random order is completed.

To stop playing
Press ■.

To cancel shuffle play
Press CONTINUE and return to the continuous playing mode.

To change from program or continuous play to shuffle play
Press SHUFFLE during program or continuous play. The program mode will be cleared and shuffle play will begin from the current selection being played.

What is this indication?

This indication appears while the player is "shuffling" the selections.

To Play only the Desired Disc in a Random Order

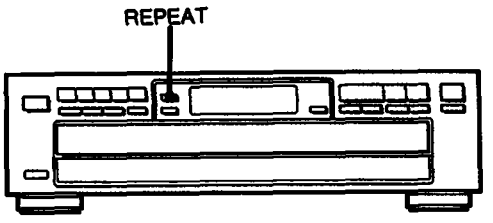
1 Press SHUFFLE to set to the 1 DISC mode.
2 Select the desired disc number with the DISC 1 to 5 buttons.
The unit starts playback automatically.

To cancel a disc which you have selected
Press the DISC 1-5 buttons to be canceled. A circle will disappear around the selected disc number.

To put back all discs which you have deleted, press ■ during stop mode.

Note
During shuffle play in ALL DISCS mode, DISC 1-5, MUSIC SCAN, EDIT/TIME FADE, and PEAK SEARCH buttons do not function.

Playing Repeatedly – Repeat Play



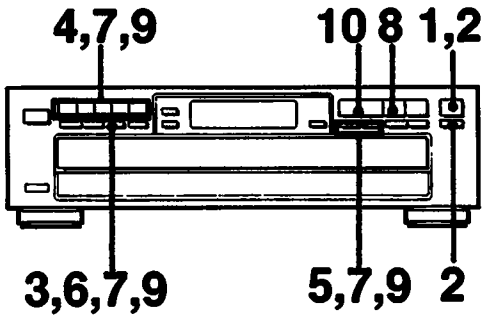
Press before or during play.

In the 1 DISC mode, press REPEAT so that "REPEAT" appears on the display. The unit repeats all selections of a disc. Press REPEAT so that "REPEAT 1" appears. The unit repeats one selection.
In the ALL DISCS mode, Press REPEAT so that "REPEAT" appears on the display. The unit repeats all selections of all discs. Press REPEAT so that "REPEAT 1" appears. The unit repeats one selection.

To cancel repeat play
Press REPEAT until "REPEAT 1" disappears.

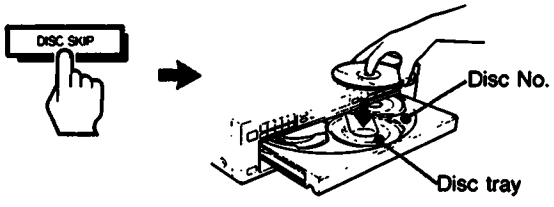
Playing in a Desired Order – Program Play

You can make a program by designating up to 32 steps in the order you want them to be played. The unit will play the disc according to your program. This function is very convenient for recording on the cassette tape.



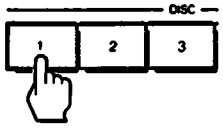
1 Press ⏏ to open the disc tray.

2 Place a disc with the label side up. To play more than one disc, press DISC SKIP to turn the disc tray and place up to 5 discs.
After placing discs, press ⏏ to close the disc tray.



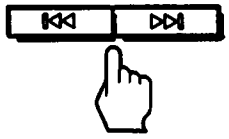
3 Press PROGRAM so that "PROGRAM" appears on the display.

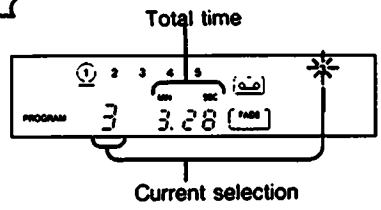
4 Choose the disc.



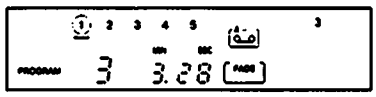
If you program a whole disc, see "To program a whole disc".

5 Press ⏮ or ⏭ repeatedly until the desired selection is located.





6 Press PROGRAM after the desired selection has been chosen.

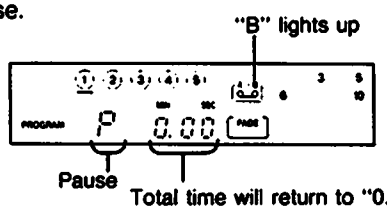


The selection is stored, and the blinking number in the window light up.

7 To program additional selections from the same disc, repeat steps 5 and 6.
To program additional selections from another disc, repeat steps 4,5 and 6.

- You can make a program for recording on the both sides of the tape at one time by performing step 1 to 6.

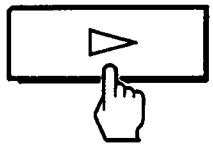
8 If you program the selections for side B, press ⏸ to insert a pause.



A pause is counted as one programming step.

9 Program the selections for side B.
Repeat steps 4 to 7 (or 5 to 7).

10 Press ▶ to start playback.



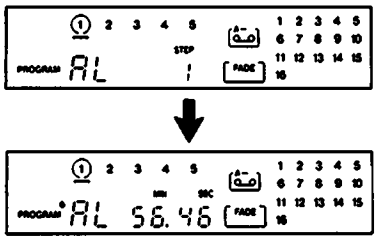
The selections for side A will start playback.

To program a whole disc

- Using DISC 1 to 5

  After steps 1, 2 and 3:

  1 Press DISC 1 to 5 to select the disc.
  "AL" is displayed on the display.



  2 Go on to step 7.

- Using DISC SKIP

  After steps 1, 2 and 3:

  1 Press DISC SKIP. "AL" is displayed on the display.
  2 Press PROGRAM.
  3 Go on to step 7.

The whole disc is programmed as one step.

To program while observing the disc labels

You can program the selections with the disc tray open.

To play the selections for side B

When the selections for side A have been played, the unit will pause. ("B" lights up.)
Set the tape to the beginning of side B, then press ► or ❚❚.
The selections for side B will start playback.

To stop program play

Press ■. The last selection number programmed will be displayed.
To resume playback, press ►. Play begins from the beginning of the program.
You can play the same program repeatedly as long as you do not cancel program play or erase the program.

To cancel program play

Press CONTINUE and return to the continuous playback mode. The program will be erased.

Skipping to the next selection programmed

Press ►►❙ during playback.

Going back to the beginning of the selection being played

Press ❙◄◄ during playback.

To cancel all the selections programmed

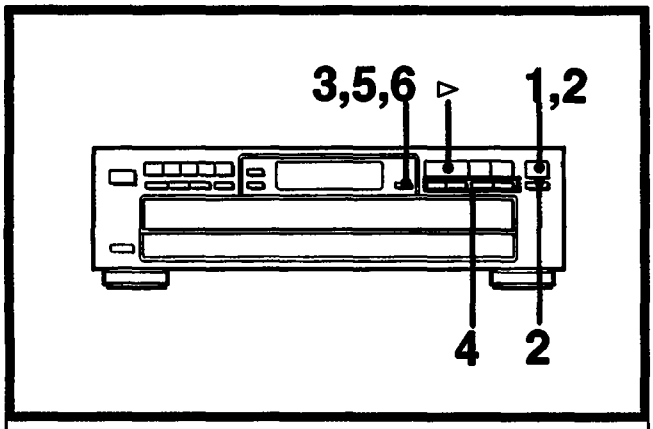
Press ■ to cancel.

Notes

- The playing time for selection numbers higher than 20 will not be added into the total playing time.
- When selections have been programmed for sides A and B, the total playing time displayed in stop mode will show the selections programmed for side B and the total playing time for side B.

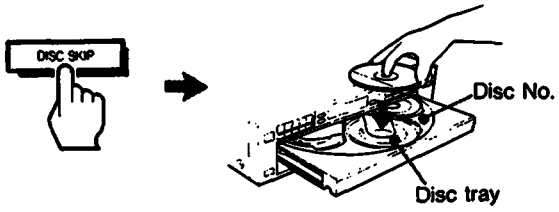
Designating the Total Playing Time – Time Edit

You can designate a time and the unit will make 2 different programs of selections each fitting within that period. Use this function by designating the length of your tape for editing both sides of a tape.



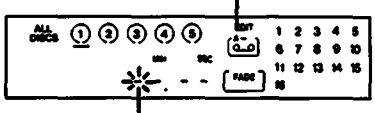
1 Press ⏏ to open the disc tray.

2 Place a disc with the label side up. To play more than one disc, press DISC SKIP to turn the disc tray and place up to 5 discs.
After placing discs, press ⏏ to close the disc tray.



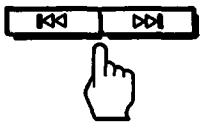
3 Press EDIT/TIME FADE.

"EDIT" lights up and "A" flashes.

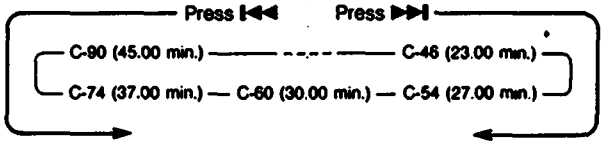


4 Designate the length of one side of your tape.

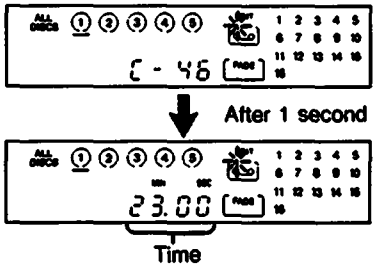
- To set the minute



Each time ⏮/⏭ is pressed, the time changes as followings:



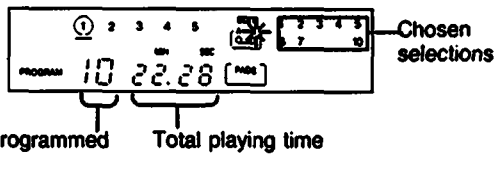
- To set the seconds, press ◀◀/▶▶.
  The time increases or decreases by 10 seconds.



Note
Total playing time can be set up to 59 minutes 50 seconds.

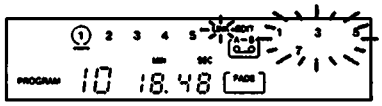
5 Press EDIT/TIME FADE.

The program for side A is completed.
If "LINK" flashes during side B program, see "To add selection(s)" on the next page.



6 Pres EDIT/TIME FADE once more, to make a program for the other side of your tape. If "LINK" flashes, see "To add selection(s)".

To add selection(s) — LINK —
After all selections on the disc have been programmed, if there is the selection that fit in the remaining time, "LINK" and the selection numbers will flash.



To add selection, press EDIT/TIME FADE again.
A program wil be made automatically to fit the playing time as close as possible to the remaining time.
If the remaining time can contain other selection(s), "LINK" and the selection number keep flashing. When "LINK"flashes, if the disc is changed by another disc, the new selection number(s) on the new disc that fit in the remaining time will flash.
"EDIT" disappears when the playing time becomes equal to the designated time. Whether "LINK" is flashing or not, you can change the disc by another disc and choose selection(s) to fit the remaining time.

To play the program
Press ►.
The selections for side A will be played and then the unit will pause. "B" lights up in the tape side indicator. Set the tape to the beginning of side B, then press ► or ❚❚.
The selections for side B will be played.

Note
Playback can be performed when "EDIT" is displayed.

To stop playback
Press ■.
You can play the same program repeatedly as long as you do not cancel time edit or erase the program.

To cancel time edit
Press CONTINUE and return to the continuous playing mode.
The program will be erased.

To erase the entire program
Press ■ once during stop; twice during playback.
The program is also erased, when you turn off the unit.

To include desired selections in the program
1 Make your own program of the desired selections.
See page 12 for instructions.
2 Follow the procedure as shown on the preceding page. Just designate the length of your tape, and you need not to subtract the playing time of your program. The unit wil place your selections at the beginning of its program and add other selections to fit the remaining time.

Tips on Editing Tapes

The following functions are convenient for editing your own tapes.

Fading out after a desired duration – Time Fade

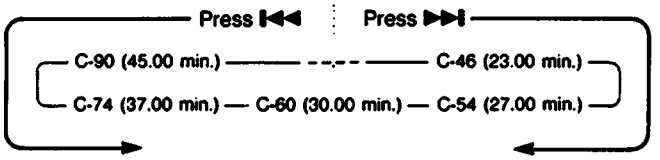
You can have the play fade out at the end by designating the play duration. Once time fade is set, it functions twice for editing both sides of a tape. You can change discs without canceling this function. The fade time is preset to 5 seconds.

To set time fade

1 Press EDIT/TIME FADE twice during stop.
[FADE] is displayed in the window.

2 Set the desired play duration, using ⏮◀◀/▶▶⏭ and ◀◀/▶▶ buttons.

e.g. To set the minutes. Each time you press ⏮◀◀/▶▶⏭ the time changes in the following way.



To set the seconds, press ◀◀/▶▶. The time increases or decreases by 10 seconds.

Note
The desired play duration can be set up to 59 minutes 50 seconds.

3 To start play, press ▶.
After the designated time, play fades out and pauses. Tape side B lights up. Press ❚❚ or ▶ to resume playing for the other side of the tape. When the play fades out for the second time, the unit pauses and the time fade function is canceled.

When playback of a disc ended before the designated playing time
The time fade function will remain effective even for a new disc(s) added for the remaining playing time originally designated, and the fade out starts in accordance with the initially set fade time.

To cancel time fade
Time fade will be canceled when
- EDIT/TIME FADE is pressed once again.
- ◀◀/▶▶ (manual search) is pressed during play.

To display the time remaining until the time set
Press TIME twice.

If the PEAK SEARCH is pressed after setting time fade, time fade is released but peak search is kept active.

Locating the loudest portion of the disc – Peak Search

The unit will scan a disc from beginning to end and determine the loudest portion (peak level) of the disc, and then play that portion repeatedly. This function will make it easier for you to adjust to the optimum level when recording on tape. You can use this function in the continuous or shuffle play mode only for a disc which is in play position currently, and in the program play mode for the selections of the entire program.

To set peak search
Press PEAK SEARCH in the stop mode. "PEAK" flashes in the window. The entire tracks in a disc or program will be searched automatically. "PEAK" lights up and the loudest portion will be played repeatedly for 4 seconds. Adjust the recording level on your tape deck according to the peak level.

Note
To go to another disc press DISC SKIP during stop.

To stop peak search
Press ■.
Press ❚❚ to pause at the first selection.

To start play immediately
Press ▶.

Note on peak search function
The unit determines the loudest portion (peak level) of a disc by searching it at fixed intervals. As a result, the portion searched may differ from the actual peak level. In addition, this function may determine different portions as the peak level for the same disc. However, the difference between the portion searched and the actual peak level is insignificant and will not present any problem in adjusting the recording level.

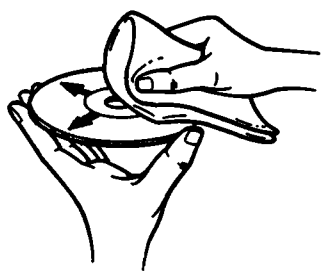
Maintenance

Cleaning the Cabinet

Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad scouring powder or solvent such as alcohol or benzine.

Cleaning Discs

Before playing, clean the disc with the cleaning cloth. Wipe the disc from the center out.



Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for analog discs.

After playing, store the disc in its case.

Specifications

System	Compact disc digital audio system
Laser	Semiconductor laser (λ=780 nm) Emission duration: continuous
Laser output	Max. 44.6 μW* * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
Frequency response	2 Hz – 20 kHz ($\pm$0.5 dB)
Signal to noise ratio	More than 100 dB
Dynamic range	More than 98 dB
Harmonic distortion	Less than 0.005% (1 kHz)
Channel separation	More than 100 dB (1 kHz)
Wow and flutter	Below measurable limit
Outputs	LINE OUT (phono jacks) Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms

General

Power requirements	120 V AC, 60Hz
Power consumption	12 W
Dimensions	Approx. 430 × 125 × 385 mm (w/h/d) (17 × 5 × 15¼ inches) including projecting parts and controls
Weight	Approx. 6 kg (13 lbs 4 oz), net

Supplied accessories

Audio signal connecting cord
(phono plug × 2 ↔ phono plug × 2) (1)

Design and specifications subject to change without notice.

Troubleshooting Guide

The following checks will assist in the correction of most problems which you may encounter with your unit. Should any problem persist after you have made these checks, consult your nearest Sony service facility. Before going through the check list below, first refer back to the connection an operating procedures.

Trouble	Causes	Remedy
No audio from one or both channels	Incorrect operation of the amplifier	Operate correctly.
	Loose connection	Connect the cords firmly.
Play does not begin.	No disc in the disc compartment	Put disc(s) in the compartment.
	The player is in the pause mode.	Press ▶ or ▮▮ to release pause.
	Moisture condensation	Leave the player turned on for about an hour.
	The disc is set upside down.	Set the disc with the label side up.
	The disc is tilted.	Set the disc correctly.
	The disc is extremely dirty.	Clean the disc.
Any operation is not possible.	The internal control program may not run.	Turn off the power and turn it on again.